AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (PREVIOUSLY PRESENTED) A seed of cotton cultivar designated DP 543 BGII/RR, wherein a representative sample of seed of said cultivar was deposited under ATCC Accession No. PTA-5857.

2. (ORIGINAL) A cotton plant, or a part thereof, produced by growing the seed of claim 1.

3. (ORIGINAL) A tissue culture of regenerable cells produced from the plant of claim 2.

4. (CURRENTLY AMENDED) ~~Protoplasts~~ A protoplast produced from the tissue culture of claim 3.

5. (CURRENTLY AMENDED) The tissue culture of claim 3, wherein cells of the tissue culture are produced from a plant part selected from the group consisting of ~~leaf, pollen, embryo, root, root tip, anther, pistil, flower, seed, boll and stem~~ leaves, pollen, embryos, roots, root tip, anthers, pistils, flowers, seeds, bolls, and stems.

6. (PREVIOUSLY PRESENTED) A cotton plant regenerated from the tissue culture of claim 3, said plant having all the morphological and physiological characteristics of cultivar DP 543 BGII/RR, representative seed of said cultivar having been deposited under ATCC Accession No. PTA-5857.

7. (PREVIOUSLY PRESENTED) A method for producing an F1 hybrid cotton seed, wherein the method comprises crossing the plant of claim 2 with a different cotton plant and harvesting the resultant F1 hybrid cotton seed.

8.-10. (CANCELED)

11. (PREVIOUSLY PRESENTED) A method for producing a male sterile cotton plant wherein the method comprises transforming the cotton plant of claim 2 with a nucleic acid molecule that confers male sterility.

12. (ORIGINAL) A male sterile cotton plant produced by the method of claim

11.

13. (PREVIOUSLY PRESENTED) A method of producing an herbicide resistant cotton plant wherein the method comprises transforming the cotton plant of claim 2 with a transgene that confers herbicide resistance.

14. (ORIGINAL) An herbicide resistant cotton plant produced by the method of claim 13.

15. (PREVIOUSLY PRESENTED) The cotton plant of claim 14, wherein the transgene confers resistance to an herbicide selected from the group consisting of imidazolinone, sulfonylurea, glyphosate, glufosinate, L-phosphinothricin, triazine and benzonitrile.

16. (PREVIOUSLY PRESENTED) A method of producing an insect resistant cotton plant wherein the method comprises transforming the cotton plant of claim 2 with a transgene that confers insect resistance.

17. (ORIGINAL) An insect resistant cotton plant produced by the method of claim 16.

18. (ORIGINAL) The cotton plant of claim 17, wherein the transgene encodes a *Bacillus thuringiensis* endotoxin.

19. (PREVIOUSLY PRESENTED) A method of producing a disease resistant cotton plant wherein the method comprises transforming the cotton plant of claim 2 with a transgene that confers disease resistance.

20. (ORIGINAL) A disease resistant cotton plant produced by the method of claim 19.

21. (CURRENTLY AMENDED) A method of producing a cotton plant with modified fatty acid metabolism or modified carbohydrate metabolism wherein the method comprises transforming the cotton plant of claim 2 with a transgene encoding a protein selected from the group consisting of ~~stearyl-ACP desaturase,~~ fructosyltransferase, levansucrase, alpha-amylase, invertase and starch branching enzyme or encoding an antisense of stearyl-ACP desaturase.

22. (PREVIOUSLY PRESENTED) A cotton plant having modified fatty acid or

modified carbohydrate metabolism produced by the method of claim 21.

23. (PREVIOUSLY PRESENTED) A cotton plant, or a part thereof, having all the physiological and morphological characteristics of the cultivar DP 543 BGII/RR, representative seed of said cultivar having been deposited under ATCC Accession No. PTA-5857.

24. (CURRENTLY AMENDED) A method of introducing a desired trait into cotton cultivar DP 543 BGII/RR wherein the method comprises:

(a) crossing DP 543 BGII/RR plants grown from DP 543 BGII/RR seed, representative seed of which has been deposited under ATCC Accession No. PTA-5857, with plants of another cotton cultivar that comprise a desired trait to produce ~~F1 progeny~~ progeny plants, wherein the desired trait is selected from the group consisting of modified fatty acid metabolism, modified carbohydrate metabolism, male sterility, herbicide resistance, insect resistance and disease resistance;

(b) selecting ~~F1 progeny~~ progeny plants that have the desired trait to produce selected ~~F1 progeny~~ progeny plants;

(c) crossing the selected progeny plants with the DP 543 BGII/RR plants to produce backcross progeny plants;

(d) selecting for backcross progeny plants that have the desired trait and all of the physiological and morphological characteristics of cotton cultivar DP 543 BGII/RR listed in Table 1 to produce selected backcross progeny plants; and

(e) repeating steps (c) and (d) ~~one or more~~ three or more times in succession to produce selected ~~second~~ fourth or higher backcross progeny plants that comprise the desired trait and all of the physiological and morphological characteristics of cotton cultivar DP 543 BGII/RR listed in Table 1 ~~as determined at the 5% significance level when grown in the same environmental conditions~~.

25. (CURRENTLY AMENDED) A cotton plant produced by the method of

claim 24, wherein the plant has the desired trait and all of the physiological and morphological characteristics of cotton cultivar DP 543 BGII/RR listed in Table 1 ~~as determined at the 5% significance level when grown in the same environmental conditions~~.

26. (CURRENTLY AMENDED) The cotton plant of claim 25 wherein the desired trait is herbicide resistance and the resistance is conferred to an herbicide selected from the group consisting of imidazolinone, sulfonylurea, glyphosate, glufosinate, L-phosphinothricin, triazine and benzonitrile.

27. (CURRENTLY AMENDED) The cotton plant of claim 25 wherein the desired trait is insect resistance and the ~~insect resistance~~ trait is conferred by a ~~transgene~~ nucleic acid molecule encoding a *Bacillus thuringiensis* endotoxin.

28. (CURRENTLY AMENDED) The cotton plant of claim 25 wherein the desired trait is male sterility and the trait is conferred by a cytoplasmic nucleic acid molecule that confers male sterility.